REMARKS

Claims 1-4, 6-12 and 14-17 stand rejected as obvious over Koch (U.S. 3152865) in view of Noweck (U.S. 6773690). The rejection is respectfully traversed.

To begin with, all of the claims contain the limitation that the hydrolysis is carried out at a pH above 9.5. The importance of pH during the hydrolysis is not recognized in either the Koch or Noweck references. More specifically, neither Koch nor Noweck teaches that in order to obtain aluminas according to the present invention, the ph during the hydrolysis step must be maintained at above 9.5. The results of this are significant.

Attached hereto is a Declaration pursuant to 37 C.F.R. §1.132 of one of the inventors outlining a comparative test that was done to demonstrate that the aluminas produced according to the method of the present invention show unexpected benefits relative to those obtained according to the combined method of Koch and Noweck. In particular, as noted in the Declaration, if the procedure of Example VIII of Koch is followed to obtain the boehmitic alumina, the conversion temperature of the alpha alumina is 1198°C. Further, the Declaration shows that if the boehmitic alumina produced according to the hydrolysis taught by Koch is now subjected to hydrothermal aging in accordance with the teachings of Noweck, one obtains an alpha alumina having a conversion temperature of 1294°C. Both of the alpha aluminas obtained according to Koch or the combination of Koch and Noweck have alpha alumina conversion temperatures much below Applicant's claimed temperature range of above 1350°C.

A higher alpha conversion temperature is important. As pointed out on p. 1, l. 9 et seq. of the Specification, in an alumina based catalyst carrier; e.g., for car exhaust gas catalysis, physical properties such as specific surface area, poor volumes and high surface

stability are extremely important. In particular, as pointed out in the cited lines, the temperature at which conversion into the alpha phase of the alumina takes place is a measure of high surface stability. As noted, prior art aluminas rarely achieve alpha conversion temperatures of even 1300°C. This is precisely what the teachings of the Koch and Noweck reference shows; i.e., the alumina produced by the method of Koch has an alpha conversion temperature of 1198°C, while if one combines the teachings of Koch and Noweck, one obtains an alumina having an alpha conversion temperature of 1294°C. Although it is possible as taught in the cited line that the conversion temperature and hence surface stability can be increased to a certain extent by doping with foreign metals, this results in contamination of the catalyst carrier and restricts its use. Accordingly, the aluminas prepared according to the present invention provide unexpected benefits in terms of higher surface area, an important consideration in a critical application such as the catalyst carrier in automobile catalytic converters.

It is believed that the attached Declaration clearly demonstrates that unexpected results are achieved by the process of the present invention vis-à-vis those obtained by the processes of either Koch or Noweck, alone or combined.

The Examiner is well aware that in a case of obviousness *vel non* and pursuant to the *KSR* case and Patent Office guidelines, a showing of unexpected results can negate a *prima facie* case of obviousness based on combining references. It is believed that the attached Declaration clearly shows such unexpected results and that the combination of the Koch and Noweck references does not make out a *prima facie* case of obviousness.

In view of the foregoing amendments, remarks and the attached Declaration, it is respectfully submitted that all claims are in condition for allowance, which is hereby earnestly solicited and respectfully requested.

Respectfully submitted,

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